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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,738	11/21/2006	Soren Badstue	36731-000083/US	5181

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EXAMINER

PRICE, CRAIG JAMES

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3753

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,738	Applicant(s) BADSTUE, SOREN	
	Examiner Craig Price	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/02/2006, 11/21/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1, 3 - 9, 11-14 and 16 are objected to because of the following informalities: The claim status identifiers have not been updated to indicate the status of the "(Amended)" or "(Original)" claims as based on the latest amendment. Regarding claim 8, "connected to the cover" should be - - connected to the body- -. Appropriate correction is required.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the wheel, rim and tire (claims 18-20) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. **Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).** If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanner et al. (3,994,312) in view of Everhard et al. (5,954,081).

Tanner et al. disclose a pressure relief device for an inflatable tire, comprising, a body (12,28) having a chamber therein and defining a circumferential outer surface portion, an inflation valve (40) arranged in the body, an overpressure valve (16,32,34) arranged in the body for releasing air when the air pressure in the chamber exceeds a first predetermined pressure level, the overpressure valve comprising at least one air conduit (36) extending from the chamber through the body to the circumferential outer surface portion, wherein a bottom portion (22) of the body defines a cavity for receiving a valve of the tire centrally within the body, the cavity defining a threaded portion for screwing the device onto a threaded portion of a tire valve.

Regarding claim 2, Tanner et al. disclose that the resilient member (20) is arranged in a reduced diameter section of the outer surface portion as shown in Figure 1.

Regarding claim 3, Tanner et al. disclose that the overpressure valve further comprises a spring element (16) arranged in the housing, the spring element exerting a

closing force on a closure element, so that the closure element opens at a second predetermined pressure level.

Regarding claim 5, Tanner et al. disclose a pin (18) for releasing a stem of a tire valve, the pin being arranged to be able to slide axially in a first passageway in the body between a first position in which it cannot release the stem of the tire and a second position, in which it can release the stem, the body further defining a bypass (between 18 and 28) passageway through which air may pass during inflation of the tire.

Regarding claim 6, Tanner et al. disclose a pin (18) for releasing a stem of a tire valve, the pin being arranged to be able to slide axially in a first passageway in the body between a first position in which it cannot release the stem of the tire and a second position, in which it can release the stem, the pin having a head portion (44) at that end of the device which is remote from the tire when the device is mounted to the tire, the head portion being arranged such that it abuts an inner collar portion of the body when the pin is in its first position.

Regarding claim 7, Tanner et al. disclose that a bottom portion of the body defines a cavity (22) for receiving a valve of the tire centrally within the body, and wherein a top portion of the body is adapted to be connected to an inflation device (42), the air conduit (36) being arranged radially displaced with respect to the cavity near the bottom portion.

Regarding claim 9, Tanner et al. disclose a pressure adjusting system (Col. 2, Lns. 21-29) for varying at least one of the first and the second predetermined pressure level.

Regarding claim 12, Tanner et al. disclose a means (Col. 2, Lns. 49-52) for emitting an acoustic signal when the air pressure in the chamber exceeds at least one of the first and second predetermined pressure level.

Regarding claims 14 and 15, Tanner et al disclose a plurality of pressure relief devices according to claim 1, wherein the devices define different predetermined first and/or second pressure levels and wherein each resilient member defines a coloured outer surface portion, and wherein the outer surface portions of the respective resilient members of the devices are coloured differently, the kit further comprising a list of colours and corresponding pressure levels (Col. 1, Lns. 59-63).

Regarding claim 16, Tanner et al. disclose the combination of a pressure relief device and an inflatable tire (Col.1, Lns. 5-15).

Regarding claim 17, Tanner et al disclose a valve for inflation of a tire, the valve being integrated with a pressure relief device according to claim 1, so that the valve and the pressure relief device form one integrated unit as shown in Figure 2.

Regarding claims 18 -20, Tanner et al. disclose that the valve is being used for a tire valve, which is well known in the art to have a tire, a rim and a wheel.

Tanner et al. is silent in having a ring-shaped resilient member which is contractively fitted around the circumferential outer surface portion, so as to keep the air conduit in a normally closed state, the properties and dimensions of the resilient member being such that it is stretched when the air pressure in the chamber exceeds the first predetermined pressure level, so as to provide an air passage from the conduit to an exterior environment, and wherein the body comprises a weakened section, the

properties of which are such that it breaks at a pressure which is higher than at least one of the first and second predetermined pressure level and further comprising a protective cover for covering at least the top portion of the body, the cover being releasably connected to the cover, further comprising means for emitting an optical signal when the air pressure in the chamber exceeds at least one of the first and second predetermined pressure level.

Everhard et al. disclose an inflation valve having over pressure protection which teaches a ring-shaped resilient member (40) which is contractively fitted around the circumferential outer surface portion, so as to keep the air conduit in a normally closed state, the properties and dimensions of the resilient member being such that it is stretched when the air pressure in the chamber exceeds the first predetermined pressure level, so as to provide an air passage from the conduit to an exterior environment, and wherein the body comprises a weakened section (36), the properties of which are such that it breaks at a pressure which is higher than at least one of the first and second predetermined pressure level and further comprising a protective cover (18) for covering at least the top portion of the body, the cover being releasably connected to the “cover”, further comprising means (Col. 3, Lns. 41-49) for emitting an optical signal when the air pressure in the chamber exceeds at least one of the first and second predetermined pressure level.

It would have been obvious to one of ordinary skill in the art at the time of invention to employ a ring-shaped resilient member which is contractively fitted around the circumferential outer surface portion, so as to keep the air conduit in a normally

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closed state, the properties and dimensions of the resilient member being such that it is stretched when the air pressure in the chamber exceeds the first predetermined pressure level, so as to provide an air passage from the conduit to an exterior environment, and wherein the body comprises a weakened section, the properties of which are such that it breaks at a pressure which is higher than at least one of the first and second predetermined pressure level and further comprising a protective cover for covering at least the top portion of the body, the cover being releasably connected to the cover, further comprising means for emitting an optical signal when the air pressure in the chamber exceeds at least one of the first and second predetermined pressure level as taught by Everhard et al. into the device of Tanner et al. in order to have an over pressure protection device which is highly reliable and durable in use (Col.2, Lns. 3-5).

Regarding claims 9 and 10, Tanner et al. is silent in having the pressure adjusting system comprises means for varying a cross-sectional area of the air conduit and wherein the pressure adjusting system comprises means for varying a distortion of the resilient member.

It would have been obvious to one of ordinary skill in the art at the time of invention to vary these parameters as a function of changing pressure. Therefore, it would have been an obvious design expedient to change the size of the air conduit and thickness of the resilient member in order to change the overprotection pressure to a desired level.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sutton (1,732,918), Nelson (1,772,107), Schwinn (2,473,912), Kunoth (3,776,174), Huang (2008/0047613) and Rosenberg (5,988,245) all disclose similar valves.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig Price whose telephone number is (571)272-2712. The examiner can normally be reached on 7AM - 5:30PM Mon-Thurs, Increased flex time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CP

24 March 2008

/John Rivell/
Primary Examiner, Art Unit 3753

/C. P./
Examiner, Art Unit 3753